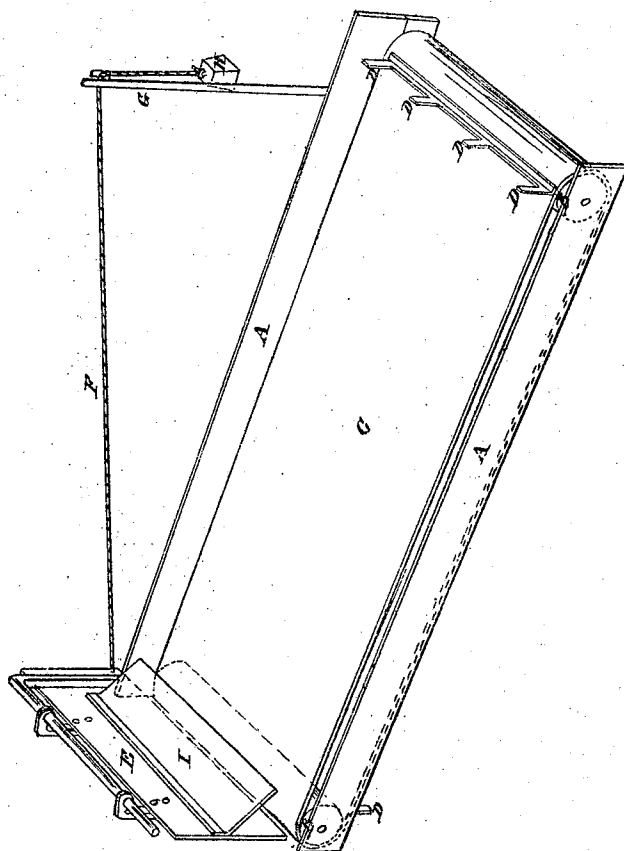


*E. A. Morrison,  
Harvester Rake.*

*No. 12339*

*Patented. Jan. 30 1855*



*E. A. & R. F. Morrison  
assignees*

# UNITED STATES PATENT OFFICE.

EDWIN A. MORRISON, OF LAWRENCEVILLE, ASSIGNOR TO E. A. & R. I.  
MORRISON, OF RICHMOND, VIRGINIA.

## IMPROVEMENT IN DELIVERING APPARATUS OF GRAIN-HARVESTERS.

Specification forming part of Letters Patent No. 12,339, dated January 30, 1855.

### *To all whom it may concern:*

Be it known that I, EDWIN A. MORRISON, of Lawrenceville, in the county of Brunswick and State of Virginia, have invented certain new and useful improvements in the apparatus for conveying and delivering the cut grain from a reaping-machine in bundles; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, which represents a perspective view of the apparatus, and makes a part of this specification.

The nature of my invention consists in providing the hinged, weighted, or spring door which restrains the cut grain until tripped to allow it to drop with a flange, under which the stalks collect and pack until there is sufficient to form a bundle, and which also aids to push off in a compact form the bundle after the door is swung open by the operation of the machine.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawing.

A represents a frame, which is to be conveniently located in rear of the cutters of any ordinary reaping-machine. In the ends of said frame, which stands crosswise of the reaper, are placed two rollers, B B, one or both of which may be driven from any of the moving parts of the reaper. Around these rollers passes an endless belt, C, provided at suitable intervals thereon with rake-teeth D. At that end of the frame toward which the cut grain is carried is hinged a door, E, to which a cord, F, is attached, running over a support, G, or pulley, and provided with a weight, H, for the purpose of holding said door in the position shown in the drawing. On this door is arranged a projecting flange, I, under which the cut grain is carried against the door E. The door being

held down by the weight, the cut grain packs in between the flange and door until, by the motion of the carrying-belt, the rake teeth come against said flange and raise up the door against the weight or spring restraining it, and as it rises the flange and rake drop the gathered grain in one spot or bundle.

I thus not only keep the grain until sufficient is gathered to form a bundle, but I insure its compact and instantaneous delivery from the conveyer when the door is tripped or opened.

When the cut grain is simply delivered in a box or hopper, and the door of said box or hopper opened, the machine being in motion, the grain will scatter along for several feet before the hopper is empty. My apparatus delivers it in compact form ready for binding.

Having thus fully described the nature of my invention, I would state that I am fully aware that an endless belt with rakes thereon for conveying the cut grain from the platform, and hinged doors controlled by weight or spring, have both been used on reaping-machines for gathering and delivering the cut grain in bundles. These I do not claim; but What I do claim as new, and desire to secure by Letters Patent, is—

In combination with an endless conveying-belt with rakes thereon, and the weighted or spring door, the inclined flange on said door under which the grain is carried and compressed until the rake-teeth come against said flange, when the door is forced upward on its hinges and the cut grain delivered in compact bundles, as set forth.

E. A. MORRISON.

Witnesses:

A. B. STOUGHTON,  
THOMAS H. UPPERMAN.